Curriculum Vitae
Justin M. Wozniak

US Citizen

Office Address:

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Research Interests:

Parallel & distributed scientific computing; models for computer systems.

Education:

Ph.D., Computer Science & Engineering **2004-2008**
University of Notre Dame
Advisor: Dr. Aaron Striegel

MMath, Computer Science **2001-2003**
University of Waterloo
Advisor: Dr. George Labahn

B.Sc., Mathematics and Computer Science **1996-2000**
University of Illinois at Urbana-Champaign
Minors: Chemistry, Latin

Awards:

Arthur J. Schmitt Presidential Fellowship 2004
NSF Graduate Research Fellowship Honorable Mention 2000

Book Chapter:

1. J. M. Wozniak and A. Striegel. **Investigating deadline-driven metascheduling policy** via **simulation with East.** In: Quantitative Quality of Service for Grid Computing: Applications for Heterogeneity, Large-Scale Distribution and Dynamic Environments, 2009.

Journal Papers:

1. P. Brenner, J. M. Wozniak, D. Thain, A. Striegel, J. W. Peng, and J. A. Izaguirre. **Biomolecular committor probability calculation enabled by processing in network storage.** J. Parallel Computing, 34(11), 2008.
2. J. M. Wozniak, P. Brenner, D. Thain, A. Striegel, and J. A. Izaguirre. **Making the best of a bad situation: Prioritized storage management in GEMS.**
   Future Generation Computer Systems, 24(1), 2008.
3. J. A. Izaguirre, D. P. Catarello, J. M. Wozniak, and Robert D. Skeel. **Langevin stabilization of molecular dynamics.**
   J. Chemical Physics, 114(5), 2001.

Conference Papers:

1. J. M. Wozniak, S. W. Son, and R. Ross. **Distributed object storage rebuild analysis via simulation with GOBS.** Proc. Workshop on Fault-Tolerance for HPC at Extreme Scale at the International Conference on Dependable Systems and Networks, IEEE Computer Society, 2010.
2. J. M. Wozniak and M. Wilde. **Case studies in storage access by loosely coupled petascale applications.** Proc. Petascale Data Storage Workshop at SC'09, 2009.
3. J. M. Wozniak, S. Chatterjee, P. Brenner, D. Thain, A. Striegel, and J. A. Izaguirre. **Pathways into large parameter search spaces: Experiences with molecular hyperdynamics.** Proc. UK e-Science All Hands Meeting, Workshop 6, 2008.
4. J. M. Wozniak. **Overdrive controllers for distributed scientific computation.** Proc. TCSC Doctoral Symposium at CCGrid, IEEE Computer Society, 2007.
5. P. Brenner, J. M. Wozniak, D. Thain, A. Striegel, J. W. Peng, and J. A. Izaguirre. **Biomolecular path sampling enabled by processing in network storage.** Proc. Workshop on High Performance Computational Biology, IEEE Computer Society, 2007.
6. J. M. Wozniak, Y. Jiang and A. Striegel. **Effects of low-quality computation time estimates in policed schedulers.** Proc. Annual Simulation Symposium, IEEE Computer Society, 2007.

7. J. M. Wozniak, P. Brenner, D. Thain, A. Striegel, and J. Izaguirre.
    Access control for a replica management database.
    Proc. Workshop on Storage Security and Survivability, ACM, 2006.
8. J. M. Wozniak, P. Brenner, D. Thain, A. Striegel, and J. Izaguirre.
    Applying feedback control to a replica management system.
    Proc. Southeastern Symposium on System Theory, IEEE Control
    Systems Society, 2006.
9. D. Thain, S. Klous, J. Wozniak, P. Brenner, A. Striegel, and J. Izaguirre.
    **Separating abstractions from resources in a tactical storage
    system.** Proc. Supercomputing, IEEE Computer Society, 2005.
10. J. M. Wozniak, Paul Brenner, D. Thain, A. Striegel, and J. A. Izaguirre.
    **Generosity and gluttony in GEMS: Grid Enabled Molecular
    Simulation.** Proc. High Performance Distributed Computing, IEEE
    Computer Society, 2005.
11. J. M. Wozniak, A. Striegel, D. Salyers and J. A. Izaguirre. **GIPSE:
    Streamlining the management of simulation on the grid.** Proc.
    Annual Simulation Symposium, IEEE Computer Society, 2005.

Theses:

- J. M. Wozniak. **Overdrive controllers for distributed scientific
  computation.** Ph.D. Thesis, University of Notre Dame, 2008.
- J. M. Wozniak. **Control system theory in Maple.**
  Master's Thesis, University of Waterloo, 2003.

Technical Reports:

1. J. M. Wozniak. **Message passing in Maple.** Technical report
   CS-2004-02, School of Computer Science, University of Waterloo, 2003.

Teaching Experience:

- **Numerical Methods (CSE 40713/60713), Fall 2006, University of Notre Dame**
  Revived this course in the department. Produced original syllabus and employed new texts. Lectured and led lab sessions. Wrote reusable homework problem sets and examinations.
- **Numerics courses (various), 2001-2003, University of Waterloo**
  Assisted five semesters of numerics courses.

Research Work Experience:

- **Postdoctoral Appointee, 2008-present**
  Radix I/O Group, MCS Division
  Argonne National Laboratory
  Supervisor: Dr. Rob Ross
- **Research Staff, 2009-present**
  Computation Institute
  University of Chicago
- **Research Assistant, 1998-2000**
  Theoretical Biophysics Group, Beckman Institute
  University of Illinois at Urbana-Champaign
  Supervisor: Dr. Robert Skeel
- **Research Assistant, Summer 1999**
  Mathematics and Computer Science Division
  Argonne National Laboratory
  Supervisor: Dr. Mike Minkoff

Leadership Experience:

- Six years of non-profit Board of Directors experience in three different organizations.
- Served as graduate student representative on the Faculty Senate at ND and UW.
- Served as Executive Committee member, National Association of Graduate and Professional Students (NAGPS) (2 terms).
- Chaired and coordinated NAGPS Midwest Regional Conference 2006.
- Served as Notre Dame Graduate Student Union chair of External Affairs (2 terms).
- Provisional Member, National Association of Parliamentarians.
- Elected twice to the office of Vice President of Operations for the Graduate Student Association at UW. Managed a student-run restaurant, and wrote and maintained two $400,000 budgets.
- Served as Director of Project Vote at UIUC, a non-partisan voter registration and information organization.